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Anaconda Co. Completes Concentrator at Butte

Aerial view of Clyde E. Weed copper ore concentrator (lower right) of The Anaconda Company at Butte. In the background is the "Richest Hill on Earth," the Berkeley Pit and the Butte Hill.

The Anaconda Company has completed construction of a $50 million dollar copper ore concentrating plant in Butte. It was named the Clyde E. Weed concentrator in honor of the chairman of the company's board of directors. Weed was chiefly responsible for construction of the ultra-modern mill.

"This plant is the key part of our plan to restore Montana copper to a competitive position," Weed said. Built near the Berkeley pit, the plant has a capacity to treat 42,000 tons of ore a day and is engineered for expansion to 56,000 tons. It will permit mining of many millions of tons of material which, up until now, has had no commercial value in today's highly competitive markets. The plant replaces the old concentrator at Anaconda. Formerly, approximately one million tons of ore a month were shipped to Anaconda, of which about 950,000 tons were discarded as waste. With the new concentrator located close to the mines, shipments to the Anaconda smelter will amount to about 40,000 to 50,000 tons of concentrates a month.

A 26-mile pipeline was built from Anaconda to supply up to 18 million gallons of water daily to help operate the concentrator.

Edward I. Renouard, vice president of the Anaconda Company, said that initially the concentrator will process about 38,000 tons of low-grade Berkeley pit ore and 4,000 tons of high grade deep vein ore daily. Later, as deep level production is increased, the ratio will change to 7,000 or more tons of high grade ore and about 35,000 tons of low-grade open pit ore. "As far as the supply of ore in Butte is concerned, there is no problem, Renouard said. "The known ore reserves are larger now than ever before in the history of Butte, and they exceed the 300 million tons which have been mined here in the past 82 years."

Peak employment on the concentrator reached 1,400 in June of 1963 and the project involved a total payroll of about $11 million. There are 14 buildings in the entire plant. The main concentrator building covers 162,000 sq. ft. It is considered to be the most scientifically advanced concentrator in the world.

Waldorf Helps City Reduce Pollution

Waldorf-Hoerner Paper Products Company at Missoula has put into operation two new facilities designed to reduce air pollution.

One is a $750,000 boiler which uses waste material from sawmills for fuel. This material, called "hog fuel" is ordinarily burned in smoke-spewing "tepee" burners at the mills in and around Missoula. Waldorf has contracted to buy most of this waste material to burn in its new boiler to provide steam energy for the pulp and paper plant and to reduce smoke problems for the Garden City by eliminating most use of the tepee burners. Company officials said the boiler unit will burn the material so efficiently that only a very small percentage of the waste will be emitted into the air in the form of smoke.

A second anti-pollution facility is the $50,000 surface condenser to improve water conservation and reduce mill odor. The condenser will reduce water consumption by 20 percent and eliminate absorption of odorous gasses in cooling water used in the condenser. Water from the condenser will be suitable for reuse and will no longer form part of the mill overflow. By reducing the quantity of hot water discharged into cooling ponds, the new system reduces the formation of steam which broadcasts odor.

Commerce and Industry Magazine Published

A new Montana edition of **Commerce & Industry** magazine has just been published, containing up-to-date information on Montana's industries and economy. Publication of the first edition was undertaken in 1956 by the State Planning Board and it was used extensively to publicize the state's opportunities for industrial development and to aid in answering inquiries from industrialists wanting to know about the economy of Montana.

The State Planning Board has distributed copies to state chambers of commerce and other development groups for use in advertising the state to their industrial contacts.

Publication of the magazine was made possible by community organizations and industries who subscribed for advertising space. The State Planning Board was assisted in compiling information for the comprehensive coverage of the economy of the state by various state and federal agencies and institutions.

Management and Effective Marketing

By Dr. Norman E. Taylor, Associate Director of the Bureau of Business and Economic Research at Montana State University.

The word "marketing" and the processes it includes are simple to understand. Marketing is the selling of any goods or services; any activity that affects the extent or the quality of the demand for a product or service is of concern to marketers. However, the enormously complex problems which face a manager trying to determine his best overall merchandising strategy, or the best short-run selling tactic, are often unappreciated. A small businessman, offering his wares to a group of consumers, quite literally has hundreds of millions of combinations of the various elements which make up a merchandising program to choose from. The really ridiculous part of the foregoing sentence is that the number "hundreds of millions" is grossly and unrealistically conservative.

The small business manager, by and large, faces every problem that a board of directors of the very largest firm must handle. The differences are those of degree and not of kind. Whatever the size of a business, the basic principles for success are the same. The decision areas (product policy, investments, borrowing, location, inventories, budgets, and so on) that may be handled by specialists in the giant organization are usually the responsibility of the small business owner. The latter, however, typically faces them infrequently (which limits his ability to develop skill through experience) and often feels that he cannot afford the expert-consultants who might assist him or the very expensive tools and techniques that may be needed to give him information on which to base his decisions.

It is true that most large firms started as small enterprises. But this is negligible comfort to the small businessman who faces the competition of very large organizations. Also, the mortality of small businesses is awesome. Of the millions of new firms that have been started since 1900, some observers estimate that about three out of every four of these have failed or been absorbed by others.

Study of Market Essential to Sales Growth

Why is this relevant to owners and managers of small businesses in Montana? Most simply stated, the essence of effective marketing is that it may substantially increase revenues. In all other functional areas, concern is for minimizing expenditures in the accomplishment of a given task. The compressibility of costs is limited by technology, the supply of money, the skill of management and employees, and so forth. Commonly, these limitations do not permit dramatic economies, at least in the short run, and many cannot even be influenced by management. On the other hand, the expansion of sales is less rigidly determined by uncontrollable factors. Care in identifying which market segments to attract, in creating powerful patronage or use appeals, in programming effective advertising and promotional campaigns, in adapting products, packages, and services to buyers' needs may pay sizeable dividends. Montana markets are dynamic; the characteristics of ultimate consumers (or industrial buyers), their attitudes, their tastes, and even their location are constantly changing. Thus, opportunities exist for the alert producer, distributor, or retailer who can perceive changes, and is flexible enough to adapt to them, to stake out a market target and sustain his claim even against very aggressive competitiors. To repeat, successful marketing strategies produce he income that pays for all other activities and these strategies usually cannot be duplicated directly, certainly not immediately, by competitiors.

The traditional marketing philosophy, perhaps justifiable in a scarcity economy, of simply disposing of the inventory of products that engineers and production managers choose to make available, has given way to the market orientation philosophy. This point of view says that the selection of products, packages, appeals, materials, prices, distribution channels, et al, must be derived from a study of the market. **For the retailer, as the purchasing agent for his customers, it means he must buy for consumers what they want and need, not simply what he wants to sell. Good market information obviously is the starting point.** Next, the best advice obtainable from experts should be solicited; it is usually less risky and less expensive to draw on the varied and extensive experience of specialists in making major decisions than to attempt to acquire their knowledge by personal experience.

One frequently hears the charge that the small enterpriser is losing ground, that he is doomed to fall before the highly organized resources of larger institutions. Business data, however, show the remarkable tenacity and viability of individual entrepeneurs both in numbers of enterprises (the proportion of the total) and in market share. Where they survive and prosper, it is usually due to their ability to adjust their activities quickly to the special requirements of a particular business environment and to their cleverness in combining resources and talents to match the chosen market.*

Clever Management Needed

The small firm owner, if he is ingenious and courageous, may often lead the way in providing new materials, new processes, or new services that stodgier, more cumbersome organizations cannot readily justify. Unfortunately, perhaps, there are no simple, pat rules to follow that will insure success in operating a business. Frequently, what is demanded and most readily accepted by buyers is that which is unorthodox. Daring and imagination are more often traced to individual inspiration than to a committee.

Competent, informed management is a minimum requirement for the survival of any organization. Management is a demanding and difficult job. **While knowledge is essential, and is the basis for confidence in decision-making, much of the manager's contribution is in the realm of art and not science—the ability to get the cooperation of subordinates, to get maximum productivity from employees, to sense the moods of markets, and the good judgment to be suspicious of crafty "get-rich-quick" tactics and sly stratagems.**

Customers Respond to Good Service

There is one final comment that is particularly relevant in defense of the role of, and the opportunities for, small scale operations. **While it may seem paradoxical to many, it is nevertheless true that the more successful firms are precisely those enterprises that give maximum service to their customers.** While the businessman must always seek some profit for his risk and his effort, nonetheless he will be more effective even in this respect if he thinks more of others than he does of his own desires. The real advantage of the small enterpriser is that he can know his customers personally and well; a single patron is worth considerably more to the small company than to the firm which has millions of accounts. Montana businesses will continue to sell, to grow, and to prosper in proportion to their ability to please their customers and to do this better than their competitors.

*In the following trade lines, single unit firms account for 80% or more of national retail sales: news dealers and newsstands, cigar stores, hardware stores, book and stationery stores, fuel or ice dealers, eating places, cameras and photographic supply stores, meat and fish markets, gasoline service stations, sporting goods and bicycle stores, farm equipment dealers, passenger car dealers, gifts, novelty and souvenir stores, florists, fruit and vegetable markets, and drinking places.

Seattle Commerce Office To Serve Montana

A re-alignment of Department of Commerce field office boundaries in Montana and Idaho transfers jurisdiction for Montana to the Seattle field office, located in Room 809 Federal Office Building, 909 First Avenue, Seattle, Washington. Southern Idaho is being transferred from the jurisdiction of the Portland office to the Salt Lake City field office.

These reassignments are being made to enable local business interests in the states involved to have closer access to a Department of Commerce field ofice and to provide for increased visits to these areas by the offices serving them .

William Flood is director of the Seattle field office. E. G. Booth, director of the Minneapolis field office of the Department of Commerce, has visited Montana on several occasions and is well known to various businessmen and industrial development groups in the state. The State Planning Board enjoyed a close working partnership with his office, and looks forward to an equally efficient relationship with the Seattle office.

State Opens Exhibit at World's Fair

Artist's drawing of Montana Pavilion at New York World's Fair. Opening of the exhibit was preceded by a cross- country tour of the Montana Centennial Train carrying 300 Montanans and exhibit cars. The State Planning Board mailed over 35,000 brochures to former Montanans and tourists to the Treasure State inviting them to visit the train at various stops enroute to New York and on its return to Billings. The exhibit cars later were returned to New York to become part of the Montana pavilion at the fair.

Montana Day at the New York World's Fair on April 24 officially opened the Montana exhibit and climaxed the 12-state tour of the Montana Centennial Train.

Start of the year-long celebration in observance of the 100th anniversary of the creation of Montana Territory was announced to the nation from Rose Bowl headquarters in Pasadena on the 64th second after midnight on January 1 by Governor Tim Babcock.

The next spectacular in the events of the Centennial Year was the departure of the 25-car Centennial Train from Billings on April 5 loaded with Montana artifacts and 300 enthusiastic Montana citizens to tell the nation of the wonders and glory of the "Treasure State." Enroute the train made overnight stops in 16 cities. Parades and banquets were held in each city, and the exhibit cars were opened to the public.

In Washington, D. C., the train group visited with President Johnson at the White House and he made a surprise appearance at the Montana banquet that night.

In New York the train contingent was joined by several hundreds of other Montanans who had arrived by special train and jet for the dedication of the Montana Pavilion at the World's Fair. The third day of the fair was proclaimed Montana Day, following United States Day and New York State Day. The Big Sky Country thus became an official part of the New York World's Fair. Six exhibit and merchandise cars from the Centennial Train make up part of the pavilion.

Featured in the displays is the largest known public exhibit of raw placer gold, a great assortment of rare original art, and an incredible assortment of priceless relics of the Indian Wars, Custer Battle, frontier saloons, cowboys and Indians; as well as mementoes of such fabled characters as Calamity Jane, Buffalo Bill Cody and Wild Bill Hickok, augmented by three additional cars describing contemporary life, industry and cultural advantages of the Treasure State.

Other parts of the pavilion feature a rangeland barbeque, an authentic outdoor blacksmith producing miniature personalized horseshoes, arcade of rare frontier music boxes, coralled horses and cattle (one of the registered Hereford's recently gave birth to the first baby to be born on the fairgrounds, a 65-pound bouncing baby boy born to Golden Heiress II), mounted bucking broncs and bull buffalo, plus daily performances by Monty Montana, Indian dances and arts and crafts exhibits.

MSU Installs Computer

A $131,000 computer center was dedicated in May on the campus of Montana State University in Missoula. The IBM 1620 electronic data processing system makes possible projects and programs that cannot even be attempted in the absence of such equipment.

The center will be used primarily for instruction and research at the university, but will also be available for use by industries and federal and state agencies on a limited basis.

The computer equipment adds a modern-day business and scientific tool to the learning resources at the university and opens special opportunities for graduates who know the capabilities of computing machines. University students will have the same opportunity to obtain training in this important field as students at other leading colleges and universities.

Also, the university is now better equipped to serve the state, as more of the problems related to economic growth and development and management of Montana's resources can be undertaken by the University's schools and departments.

Funds for the center were provided through a $22,600 grant from the Undergraduate Instructional Equipment Program of the National Science Foundation and contributions through the MSU Endowment Foundation from industries and individuals in the state.

John Peterson, associate professor in the department of mathematics, is acting director of the center.

Tractor Duals Made In Terry

A tractor attachment is being manufactured in Terry that does away with the need for ballast or metal weights to deliver traction.

Prairie Industries are manufacturing dual wheels for tractors, called Prairie Quick 'Tatch Duals. Advertising claims of the company are attested to by farmers using the duals: that they can be installed by one man in as little as 35 minutes, won't slip or loosen under the most severe pulling power, triples the life of the tires, speeds up field work by 25 to 30 per cent because of reduced wheel slippage, and the wheels do not push and plow through the ground—they roll over the top.

The duals are the invention of Leonard Corneliusen, president of the company. He has fabricated the duals on a special order basis in connection with his farm equipment dealership for several years, but their recent popularity has caused him to devote full time to manufacturing and distributing the duals. They are currently being handled by 200 dealers in four states.

Corneliusen has expanded his machine shop into an assembly line and is turning out 35 sets per day. He employs 15 people and expects to double that figure in the near future. Rims for the duals are rolled in Quincey, Illinois, then shipped to Prairie Industries where the component parts are fabricated.

Use of duals has come about as a direct result of the increased power in tractors. Usually the tires would have to be weighted in order to deliver the traction needed. But this cuts down the horsepower availability, needlessly compacts the soil and wears down the treads on the tire. Implement dealers in the state are often requested by the purchaser to install duals on new tractors, but more and more farmers are insisting upon the Prairie Quick 'Tatch duals made in Terry because of their efficiency and ease of installation.

Prairie Industries also makes another Corneliusen invention, a tool change kit which provides quick fasteners for cultivator sweeps. Both the duals and the tool kit are made for almost any make or model of machinery.

City Planning Study Analyzes Errors And Success In 14 Cities

Land development problems and related local actions in 14 Upper Midwest urban areas during the period of post-war growth and development are described in a report prepared by the Upper Midwest Research and Development Council.

Great Falls, Missoula, and Billings are among the cities where case studies were made. According to the authors, plans or actions are likely to be a response to growth or obsolescence. Hence, the cities chosen either had exceptionally large growth (the three Montana cities were in this class) or lack of growth.

The study, entitled "The Why and How of Community Planning," is focused on a specific group of problems:

- **Those connected with developing land and extending streets and utilities to serve the developed areas, and**
- **Problems associated with the physical building and rebuilding of the city.**

Dr. Ellis L. Waldron, professor of political science at Montana State University and now on leave at Harvard University, was one of the authors of the report. Dr. Waldron has long been active in urban planning and was one of the authors of the planning and zoning legislation passed in the 1963 Montana Legislature.

Source of Growth Problems

In their surveys of urban growth in the 14 cities studied, the authors found that most of the difficulties could be traced back either to postponement or neglect of maintenance and replacement, or to the development of new facilities and areas without a comprehensive community plan. Sometimes the plan existed but was ignored or violated.

With every problem, there seemed to exist one or both of two conditions:

- Those who decided what and where to build lacked essential and available knowledge; in some cases this was special local knowledge, in other cases it was technical knowledge.
- The public lacked essential knowledge which also existed and this failure to intellectually grasp their community put a drag on leadership and action.

Effective Development Aids

Likewise, the researchers found that positive action on a community development problem was accompanied by certain conditions:

- There was an effective exchange of special local knowledge through some common "clearing house," in which all of the facts about current and planned land developments were brought together and made available. The most effective clearing houses were the active, official planning commissions.
- There was professional help available.
- The public had the pertinent technical facts and general knowledge. This was accomplished through the local press, service clubs, city officials, or planning consultants.

Without any one of these three ingredients, action fell short. But with all three, more orderly community development was achieved.

Steps to Positive Action

The authors emphasize four steps to positive actions and orderly development:

1. Maintain an active planning commission which is an official arm of the elected local government. The normal operation of the commission brings together all of the people who are engaged in building and rebuilding the city at any given time and necessitates the exchange of special local knowledge among them.

2. Provide a staff for the commission. This assures a source of technical information.

3. Conduct a program of adult education.

4. Help the social education program in the schools to increase practical understanding of urban communities.

On the latter two steps, the authors commented that "Increasing the intellectual capacity to deal with future problems is as important as taking action to deal with current problems."

Carp Spawn Industry

At one of the quarterly meetings of the State Planning Board with its Advisory Council, a suggestion was made to investigate the possibility of doing something commercially with the millions of carp fish in the waters of the Missouri River and its reservoirs.

The staff subsequently studied the feasibility of establishing a plant to process the fish in various forms and the extent of market outlets for such a product. The preliminary investigations revealed that if the fish could be processed into a meal form, a large market already existed in Montana.

The market results from the recent expansion in the animal feed industry which uses a considerable amount of fish meal due to its high protein content. Montana firms now producing animal feeds obtain fish meal from processors on the Pacific Coast.

A news release indicating the feasibility of such an industry brought response from L. C. (Jack) Keck of Great Falls, a veteran commercial fisherman from the Pacific Coast and Alaskan waters. He discussed the venture with the State Planning Board and also received advice and guidance from the State Fish and Game Commission which is interested in the project as a means of ridding the rivers of rough fish.

Keck and four others have recently set up boats and nets on Lake Helena, a feeder basin to Hauser Lake on the Missouri. Right now the carp are spawning in shallow waters and Keck is using gill nets to seine them from the lake. Later, when the carp disburse and go to deeper water, live traps and purse seines will be used.

He estimated the first net brought in about 17,000 pounds. The take is sold to a local meat plant which is processing the carp into meal. He hopes later to set up his own rendering plant.

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